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Anti-Caveolin 1 (Phospho-Y14) Antibody

Catalog # AP59979

Product Information

Application	WB, IHC
Primary Accession	Q03135
Reactivity	Human, Mouse, Rat, Pig, Bovine, Dog, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20472

Additional Information

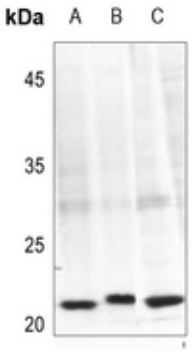
Gene ID	857
Other Names	CAV; Caveolin-1
Target/Specificity	KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding Y14 of human Caveolin 1 protein. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IHC~~1:100~500
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

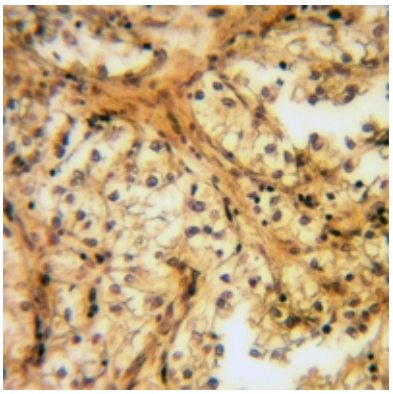
Name	CAV1
Synonyms	CAV
Function	May act as a scaffolding protein within caveolar membranes (PubMed:11751885). Forms a stable heterooligomeric complex with CAV2 that targets to lipid rafts and drives caveolae formation. Mediates the recruitment of CAVIN proteins (CAVIN1/2/3/4) to the caveolae (PubMed:19262564). Interacts directly with G protein alpha subunits and can functionally regulate their activity (By similarity). Involved in the costimulatory signal essential for T-cell receptor (TCR)-mediated T-cell activation. Its binding to DPP4 induces T-cell proliferation and NF-kappa-B activation in a T-cell receptor/CD3-dependent manner (PubMed:17287217). Recruits CTNNB1 to caveolar membranes and may regulate CTNNB1-mediated signaling through the Wnt pathway (By similarity). Negatively regulates TGFB1-mediated activation of SMAD2/3 by mediating the internalization of TGFBR1 from membrane rafts leading to its subsequent degradation (PubMed:25893292).

	Binds 20(S)- hydroxycholesterol (20(S)-OHC) (By similarity).
Cellular Location	Golgi apparatus membrane; Peripheral membrane protein. Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Membrane raft. Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:P33724}. Cytoplasm. Note=Colocalized with DPP4 in membrane rafts. Potential hairpin-like structure in the membrane. Membrane protein of caveolae. In the presence of DSG2 localizes to the cytoplasm away from cell borders (PubMed:26918609)
Tissue Location	Skeletal muscle, liver, stomach, lung, kidney and heart (at protein level). Expressed in the brain

Images



Western blot analysis of Caveolin 1 (Phospho-Y14) expression in SGC7901 (A), SGC7901-H2O2-5min (B), HEK293T (C) whole cell lysates. (Predicted band size: 20 kD; Observed band size: 21 kD)



Immunohistochemical analysis of Caveolin 1 (Phospho-Y14) staining in human kidney cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

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